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14. NEW RECORD OF HAWKMOTH *SATASPES TAGALICA* F. *HAUXWELLII* (LEPIDOPTERA: SPHINGIDAE) FROM SANJAY GANDHI NATIONAL PARK, MUMBAI, INDIA¹

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Introduction

According to Bell and Scott (1937) and D' Abrera (1986), there are 1,354 species and subspecies of Hawkmoths in the world, of which 204 have been recorded from India. Rose *et al.* (2004) recorded 29 species from north-west India, and Sathe and Pandharbale (1999) recorded 13 species from western Maharashtra, including the Western Ghats. Shubhalaxmi and Chaturvedi (2004) has documented 32 species of Hawkmoths during her doctoral studies in the Sanjay Gandhi National Park (SGNP), Mumbai, Maharashtra, which is situated in the northern Western Ghats .

As a part of ongoing ecological study on Hawkmoths of SGNP, I reared a caterpillar of *Sataspes tagalica* f. *hauwellii* on *Dalbergia latifolia*. This is the first record of *Sataspes tagalica* f. *hauwellii* from India since the earlier record shows its distribution range to be from Myanmar to Sundaland and Philippines (D' Abrera 1986).

Study area

Sanjay Gandhi National Park (SGNP) is situated in both Greater Bombay and Thane districts, with a total area of approximately 103 sq. km (19° 88'-19° 21' N; 72° 53'-72° 58' E). The Park lies to the west of the Western Ghats and flanks India's western seacoast. It has four types of habitats ranging from mangroves to the evergreen forests of the Western Ghats. The dominant vegetation type of this forest is mixed-deciduous, namely southern India moist-mixed deciduous forest. The Park is divided into two unequal parts; the southern block is more extensive while the northern Nagla block extends over just 16 sq. km. The southern block has a mixed forest, while the Nagla block is characterized by moist-evergreen forest.

Species description

The adult has been identified based on the morphological characters mentioned and illustrated by Bell and Scott (1937), de Niceville (1900) and D' Abrera (1986). The caterpillar was obtained from Nagala block on July 11, 2005 and the adult was released, after photographing it, in the southern block near Goregaon on September 07, 2005.

According to Bell and Scott (1937) genus *Sataspes*

(Subfamily SpHINGINI) has three species: *Sataspes infernalis* (Westw.), *S. tagalica* Boisd. and *S. scotti* Jord. *S. tagalica* has four forms: *tagalica* Boisd., *thoracica* Roths. & Jord., *collaris* Roths. & Jord. and *hauwellii* de Niceville, of which only the former two are recorded from India. The species was first described by de Niceville (1900) from Taungoo, Upper Tenasserim, Myanmar. Tenasserim is a part of the southernmost division of lower Myanmar (9° 58'-19° 29' N; 95° 48'-99° 40' E) (Anon. 1908).

Sataspes tagalica f. *hauwellii* Boisdual, 1875

Sataspes hauwellii de Nicev., 1900

Sataspes tagalica f. *hauwellii* Roths. & Jord., 1903

Sataspes tagalica hauwellii Seitz, 1929

Adult: The adult is a day flier and a beautiful mimic of the Carpenter Bee *Xylocopa auripennis*. Interestingly, the female moth mimics the male Carpenter Bee and vice versa. The description of the adult is given by de Niceville (1900). The adult *S. tagalica* f. *hauwellii* differed from the other three forms by the absence of yellow scales on the thorax and abdomen. The iridescence on wings of adults is seen only in live specimens (Ian Kitching pers. comm.).

Early stages: The early stages of this species have not been recorded, but the early stages of the closely allied *S. infernalis* have been mentioned by Bell and Scott (1937). The caterpillar and pupa are similar to *S. infernalis*.

The caterpillar was reared in captivity within the study area. Pupation occurred inside mud on July 29, 2005, and the adult emerged on September 06, 2005. The pupal period was 40 days, the maximum recorded for Hawkmoths in the monsoon season, so far.

Larval food plant: *Dalbergia latifolia* (Family Fabaceae)

Distribution: INDIA: Mumbai, Maharashtra; Myanmar to Sundaland, Philippines.

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15. *CALAMAGROSTIS PSEUDOPHRAGMITES* (HALL.F.) KOELER VAR. *TARTARICA* (HOOK.F.) BOR
(POACEAE) – A NEW RECORD FOR RAJASTHAN¹

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During a plant collection visit near the Lunkaransar canal, district Bikaner, Rajasthan we collected *Calamagrostis pseudophragmites* (Hall.f.) Koeler var. *tartarica* (Hook.f.) Bor. A perusal of literature shows that this species has not been reported from Rajasthan (Shetty and Singh 1987-93).

This paper records for the first time the occurrence of *Calamagrostis pseudophragmites* (Hall.f.) Koeler var. *tartarica* (Hook.f.) Bor from Rajasthan. It is known, so far, from Jammu-Kashmir, Uttar-Pradesh, Sikkim and West Bengal in India (Moulik 1997). The specimens have been deposited in the Herbarium, Department of Botany, Govt. Dungar College, Bikaner (Rajasthan). The identification of the species is based on Bor (1960).

Calamagrostis pseudophragmites (Hall.f.) Koeler, Descr. Gram. 106.1802. var. *tartarica* (Hook.f.) Bor, Grasses Burma Ceyl. Ind. Pak. 396. 1960; Moulik, Grasses and Bambusa of Ind. Vol II, 395. 1997. *Calamagrostis littorea* P. Beauv. var. *tartarica* Hook.f., Fl. Brit. Ind. 7: 261. 1897 (type K). (Fig. 1).

Perennial, up to 1.6 m tall; Leaf blade broad; Panicle up to 50 cm long, very dense, purple spikelets; Spikelets 3.5 mm long; Glume 3.5 mm long; Lemma 3.5 mm long; Anthers 1.3 mm long.

Specimen Examined: Near canal Lunkaransar, Bikaner, Rajasthan. Kantiya & Sharma 1489, Purohit & Sharma, 3109.



Fig. 1: *Calamagrostis pseudophragmites* (Hall.f.) Koeler var. *tartarica* (Hook.f.) Bor:

A. Inflorescence, B. Spikelet, C. Upper glume, D. Lower glume

Fl. & Fr.: July-September.

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